

TCEQ AIR QUALITY PERMIT NUMBER 7711A

APPLICATION BY	§	BEFORE THE
	§	
BUILDING MATERIALS CORPORATION	§	
OF AMERICA	§	TEXAS COMMISSION ON
ASPHALT ROOFING PRODUCTION	§	
FACILITY	§	
DALLAS, DALLAS COUNTY	§	ENVIRONMENTAL QUALITY

EXECUTIVE DIRECTOR'S RESPONSE TO PUBLIC COMMENT

The Executive Director of the Texas Commission on Environmental Quality (the commission or TCEQ) files this Response to Public Comment (Response) on the New Source Review Authorization application and Executive Director's preliminary decision.

As required by Title 30 Texas Administrative Code (TAC) § 55.156, before an application is approved, the Executive Director prepares a response to all timely, relevant and material, or significant comments. The Office of Chief Clerk timely received comment letters from the following persons: David Hunter. This Response addresses all timely public comments received, whether or not withdrawn. If you need more information about this permit application or the permitting process please call the TCEQ Office of Public Assistance at 1-800-687-4040. General information about the TCEQ can be found at our website at www.tceq.state.tx.us.

BACKGROUND

Description of Facilities

Building Materials Corporation of America (the Applicant) has applied to the TCEQ for a New Source Review Authorization under Texas Clean Air Act (TCAA), §382.0518. Air Quality Permit Number 7711A will authorize the modification of an existing facility that may emit air contaminants.

This permit will authorize the Applicant to modify existing operations to resolve deviations that resulted from stack testing. The Applicant will also be consolidating by incorporation Standard Permit Registration No. 81652 as part of the amendment and correcting permit representations for existing facilities and for facilities that no longer exist at the plant site. All permit changes will reflect current operating conditions for all permitted facilities at the site. There are no proposed production rate increases for asphalt shingles, physical modifications to existing facilities, or new construction of facilities. Building Materials Corporation of America has requested to increase asphalt throughput rates for Lines 1 and 3, but the increase in asphalt throughput will not result in an increase in the production of asphalt shingles. The facilities are located at 2600

Singleton Blvd Dallas, Dallas County. Contaminants authorized under this permit include particulate matter, including particulate matter less than 10 microns in diameter and particulate matter less than 2.5 microns in diameter (PM/PM₁₀/PM_{2.5}), sulfur dioxide (SO₂), volatile organic compounds (VOC), carbon monoxide (CO), and nitrogen oxides (NO_x).

Procedural Background

Before work is begun on the modification of an existing facility that may emit air contaminants, the person planning the modification must obtain a permit amendment from the commission. This permit application is amendment of Air Quality Permit Number 7711A.

The permit application was received on December 19, 2008, and declared administratively complete on January 14, 2009. The Notice of Receipt and Intent to Obtain an Air Quality Permit (NORI or first public notice) for this permit application was published on February 5, 2009, in English in - the *Dallas Observer* and in Spanish in - *El Extra*. The Notice of Application and Preliminary Decision (NAPD or second public notice) for this permit application was published on March 11, 2010 in English in the *Dallas Observer*, and in Spanish in *El Extra*. Since this application was administratively complete after September 1, 1999, this action is subject to the procedural requirements adopted in accordance with House Bill 801, 76th Legislature, 1999.

COMMENTS AND RESPONSES

COMMENT 1: Commenter believes that air emissions from the plant may be causing, or have already caused, health-related illnesses that may be linked to cancer and other diseases. (David Hunter)

RESPONSE 1: Section 382.002 of the TCAA authorizes the commission to safeguard the state's air resources from pollution by controlling or abating air pollution and emissions of air contaminants, consistent with the protection of public health, general welfare and physical property including aesthetic enjoyment of air resources by the public and maintenance of adequate visibility. The commission does not regulate on-site worker health, but rather ambient (off-property) air. Criteria pollutants are those pollutants for which a National Ambient Air Quality Standard (NAAQS) has been established. The U.S. EPA, under authority in the Federal Clean Air Act (FCAA), established NAAQS as levels of air quality to protect public health and welfare. The plant will continue to emit particulate matter (PM), including PM₁₀ and PM_{2.5}, sulfur dioxide, volatile organic compounds, carbon monoxide, and nitrogen oxides as the criteria pollutants. The NAAQS is set by the U.S. EPA to protect sensitive members of the population, such as children and the elderly, after scientific review and public input. Every permit holder must comply with federal and state standards established for these

pollutants to ensure the protectiveness of public health and welfare. The TCAA requires that the Applicant demonstrate use of best available control technology (BACT) and that the emissions are not detrimental to public health and welfare. In the review of this application, the proposed emission changes were evaluated, and it was determined that when the plant operates in compliance with its permit, it is not expected that existing health conditions will worsen or that there will be adverse health impacts from emissions of PM, including PM₁₀ and PM_{2.5}, sulfur dioxide, volatile organic compounds, carbon monoxide, and nitrogen oxides. The Applicant will continue to use abatement devices and methods that meet, and in some cases exceed, BACT criteria for asphalt processing and asphalt roofing facilities with consideration given to economic reasonableness and technical practicality. All sources of emissions will vent emissions to an incinerator that will capture and destroy PM/PM₁₀/PM_{2.5}, VOC, and hazardous air pollutants with greater than 95 percent efficiency. A review of the RACT, BACT, LAER Clearinghouse (RBLC), a database of nationwide permitted facilities and their associated permitted emission limits and methods of abatement, resulted in no other existing stationary source employing abatement devices or methods for control of SO₂, only for abatement of PM/PM₁₀, CO, and VOC. Evaluation of the proposed emission limit of CO resulted in the Applicant's proposed limit residing within the range of recently reviewed and approved permit limits for combustion sources also emitting CO. It is expected that the majority of emitted CO will emanate from the incinerator.

Effects Screening Levels (ESLs) are constituent-specific guideline concentrations used in the Executive Director's effects evaluation of constituent concentrations in air. These guidelines are derived by TCEQ's Toxicology Section and are based on a constituent's potential to cause adverse health effects, odor nuisances, vegetation effects, or materials damage (e.g. corrosion). Health-based screening levels are set at levels lower than levels reported to produce adverse health effects, and are set to protect the general public, including sensitive subgroups such as children, the elderly, or people with existing respiratory conditions. Adverse health or welfare effects are not expected to occur if the air concentration of a constituent is below its ESL. If an air concentration of a constituent is above the screening level, it is not necessarily indicative that an adverse effect will occur, but rather that further evaluation is warranted. ESLs are established considering a generous safety factor to protect not only the general public, but also sensitive members of the general public. In the review of this application, the proposed health effects of asphalt vapors were evaluated, and it was determined that when the plant operates in compliance with its permit, it is not expected that existing health conditions will worsen or that there will be adverse health impacts from emissions of asphalt vapors.

Permit applications for new construction or modifications may be required to include air dispersion modeling in order for the TCEQ staff to evaluate the impact of emissions from the proposed facility upon the health, general welfare, and property of the public and for the Applicant to demonstrate compliance with all air quality rules and regulations and the intent of the TCAA. In this case, refined atmospheric dispersion modeling

submitted in support of this application demonstrated that no cumulative concentration of any air contaminant will exceed NAAQS established for criteria pollutants or ESLs established for non-criteria pollutants. Appropriate background concentrations for criteria pollutants were retrieved from monitoring stations nearby the plant site to determine total concentrations for comparison against the NAAQS. Toxicology review of the non-criteria pollutant was unnecessary because the total concentration was less than the ESL.

For the facilities and operating procedure defined in the application, the 24-hour PM_{10} *de minimus* level is $5 \mu g/m^3$, and the modeled maximum ground level concentration (GLC_{max}) value was found to be $68 \mu g/m^3$. Upon identifying this exceedance, The Air Quality Modeling Guidelines requires the addition of the appropriate background, $56 \mu g/m^3$ in this case, to the modeled concentration, i.e. $68 \mu g/m^3$, resulting in a PM_{10} GLC_{max} concentration value of $124 \mu g/m^3$ which is significantly below the NAAQS protectiveness limit of $150 \mu g/m^3$.

The annual PM_{10} *de minimus* level is $1 \mu g/m^3$, and the modeled value at the GLC_{max} location was found to be $18 \mu g/m^3$. As before, upon identifying this exceedance, The Air Quality Modeling Guidelines requires the addition of the appropriate background, $30 \mu g/m^3$ in this case, to the modeled concentration, i.e. $18 \mu g/m^3$, resulting in a 24-hour GLC_{max} value of $48 \mu g/m^3$. This, again, is lower than the NAAQS protectiveness requirement of $50 \mu g/m^3$.

The 1-hour NO_2 *de minimus* concentration is $10 \mu g/m^3$, and the modeled value at the GLC_{max} location was found to be $83 \mu g/m^3$. Due to the exceedance above the *de minimus* threshold, the modeled value at the GLC_{max} location was added to the appropriate background concentration of $103 \mu g/m^3$ resulting in a maximum concentration of $186 \mu g/m^3$. This value is also below the NAAQS limitation of $188 \mu g/m^3$ required for protectiveness with respect to the NAAQS.

The annual NO_2 *de minimus* concentration is $1 \mu g/m^3$, and the modeled value at the GLC_{max} location was found to be $14 \mu g/m^3$. Due to the exceedance above the *de minimus* threshold, the modeled value at the GLC_{max} location was added to the appropriate background concentration of $30 \mu g/m^3$ resulting in a maximum concentration of $44 \mu g/m^3$. This value is also below the NAAQS limitation of $100 \mu g/m^3$ required for protectiveness with respect to the NAAQS.

To address the state property line standard for SO_2 , the modeled 1-hour concentration was used as a surrogate for comparison against the 30-minute standard. Since there is no *de minimus* value, the GLC_{max} modeled value of $676 \mu g/m^3$ was compared directly

against the TCEQ standard of $1,021 \mu\text{g}/\text{m}^3$. Therefore, this modeled value is lower than the TCEQ protectiveness requirement of $1,021 \mu\text{g}/\text{m}^3$.

The 3-hour SO_2 *de minimus* concentration is $25 \mu\text{g}/\text{m}^3$, and the modeled value at the GLC_{max} location was found to be $532 \mu\text{g}/\text{m}^3$. Thus, as before, due to the exceedence above the *de minimus* threshold, the modeled value at the GLC_{max} location was added to the appropriate background concentration of $24 \mu\text{g}/\text{m}^3$ resulting in a maximum concentration of $556 \mu\text{g}/\text{m}^3$. This value is also below the NAAQS limitation of $1,300 \mu\text{g}/\text{m}^3$ required for protectiveness with respect to the NAAQS.

The 24-hour SO_2 *de minimus* concentration is $5 \mu\text{g}/\text{m}^3$, and the modeled value at the GLC_{max} location was found to be $329 \mu\text{g}/\text{m}^3$. Due to the exceedence above the *de minimus* threshold, the modeled value at the GLC_{max} location was added to the appropriate background concentration of $13 \mu\text{g}/\text{m}^3$ resulting in a maximum concentration of $342 \mu\text{g}/\text{m}^3$. This value is also below the NAAQS limitation of $365 \mu\text{g}/\text{m}^3$ required for protectiveness with respect to the NAAQS.

The annual SO_2 *de minimus* concentration is $1 \mu\text{g}/\text{m}^3$, and the modeled value at the GLC_{max} location was found to be $39 \mu\text{g}/\text{m}^3$. Due to the exceedence above the *de minimus* threshold, the modeled value at the GLC_{max} location was added to the appropriate background concentration of $3 \mu\text{g}/\text{m}^3$ resulting in a maximum concentration of $42 \mu\text{g}/\text{m}^3$. This value is also below the NAAQS limitation of $80 \mu\text{g}/\text{m}^3$ required for protectiveness with respect to the NAAQS.

Asphalt vapors from the facilities and operating procedure were evaluated on a short-term and a long-term basis for comparison to the ESL. On a 1-hour basis, the modeled value at the GLC_{max} location was found to be $336 \mu\text{g}/\text{m}^3$. This value is below the TCEQ Toxicology Section's established limitation of $350 \mu\text{g}/\text{m}^3$ required for protectiveness with respect to the protection of public health, general welfare, and physical property, including the aesthetic enjoyment of air resources by the public and the maintenance of adequate visibility. On an annual basis, the modeled value at the GLC_{max} location was found to be $25 \mu\text{g}/\text{m}^3$. This value is below the TCEQ Toxicology Section's established limitation of $35 \mu\text{g}/\text{m}^3$ required for protectiveness with respect to the protection of public health, general welfare, and physical property, including the aesthetic enjoyment of air resources by the public and the maintenance of adequate visibility.

All other contaminants were evaluated to be below the respective *de minimis* levels corresponding to the contaminant and the time averaging period required by the NAAQS to determine protectiveness.

In addition to meeting the above federal and state standards and guidelines, applicants must comply with 30 TAC § 101.4, which prohibits nuisance conditions. Specifically, that rule states that "no person shall discharge from any source" air contaminants which are or may "tend to be injurious to or adversely affect human health or welfare, animal

life, vegetation, or property, or as to interfere with the normal use and enjoyment of animal life, vegetation, or property." As long as the facilities at the plant are operated in compliance with the terms of the permit, nuisance conditions or conditions of air pollution are not expected.

Individuals are encouraged to report any concerns about nuisance issues or suspected noncompliance with terms of any permit or other environmental regulation by contacting the TCEQ Dallas/Fort Worth Regional Office at 817-588-5800 or by calling the 24-hour toll-free Environmental Complaints Hotline at 1-888-777-3186. If the plant is found to be out of compliance with the terms and conditions of the permit, it will be subject to possible enforcement action. Citizen-collected evidence may be used in such an action. See 30 TAC § 70.4, Enforcement Action Using Information Provided by Private Individual, for details on gathering and reporting such evidence. The TCEQ has procedures in place for accepting environmental complaints from the general public but now has a new tool for bringing potential environmental problems to light. Under the citizen-collected evidence program, individuals can provide information on possible violations of environmental law and the information can be used by the TCEQ to pursue enforcement. In this program, citizens can become involved and may eventually testify at a hearing or trial concerning the violation. For additional information, see the TCEQ publication, "Do You Want to Report an Environmental Problem? Do You Have Information or Evidence?" This booklet is available in English and Spanish from the TCEQ Publications office at 512-239-0028, and may be downloaded from the agency website at www.tceq.state.tx.us (under Publications, search for document no. 278).

CHANGES MADE IN RESPONSE TO COMMENT

No changes to the draft permit have been made in response to public comment.

Respectfully submitted,

Texas Commission on Environmental
Quality

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